Camp Minden M6 and CBI Potential Technology Screening Information

Name of Technology Vendor Contact Information Website or link to additional information	Please describe how your technology or process works and the equipment involved. Is this existing equipment or does it need to be fabricated? Is a donor explosive required?	Has your technology/ process been tested or used with M6, CBI, propellants, or similar materials? What permits or approvals do you have in hand? Describe actual uses, volumes treated, and results of tests or applications for M6 like materials.	Can your technology/ process be implemented on-site at Camp Minden? How long would it take to mobilize, install and be ready to treat material? Would it require any extra handling or preparation of the M6 and CBI? What are the key space and logistical requirements for your installation on-site including storage of residues/wastes?	What is the Destruction Efficiency of your process? What is the nature of the residues/wastes that will remain, and what processes/disposal/ recycling will be used for this residue/ waste? What percent volume reduction (or addition) is achieved?	What is the nature and composition of any emissions? How are emissions Monitored, captured, tested, treated and ultimately disposed? What potential hazards to workers, other on-base personnel and nearby residents should be considered and how are they managed?	What is the highest throughout you have achieved you're your process? What is the reasonable maximum daily capacity/ throughput you believe you could achieve at Camp Minden? What is the reliability and maintenance requirements of your equipment? Is it subject to weather?
Industrial Supercritical Water Oxidation (iSCWO) John Follin General Atomics San Diego, CA 858 455 4405 www.ga.com	Destroys waste by using supercritical water – that is, water at the critical point of 3400 psi and 1200F. At these conditions, organic and other chemicals are completely destroyed. This is existing technology that is used to destroy energetics and a variety of chemical wastes. One unit exists at Camp Minden; others can be shipped to the site. No donor explosive is required.	Yes, tested with a wide range of propellants. We have a permit at Camp Minden for the existing iSCWO system at Camp Minden. Units have been approved for energetics destruction with 1000+ hrs of successful tests. Actual uses involve SCWO for the destruction of agent and energetics (BGCAPP) and destruction of red water in Korea.	Yes, we already have a unit at Camp Minden and ran a variety of energetics tests using the system. Existing unit plus another 3gpm unit would take three months before operation – this is to get the slurry feed system ready. Other units would be delivered soon after. I have submitted a multi-equipment multi-phase schedule that illustrates what could be done. A slurry system would have to be implemented to feed the M6 and CBI into the system. Key space – existing buildings at Camp Minden	Destruction efficiency for energetics is 99.9999%. Liquid effluent – water Gaseous effluent – O2, N2, CO2, and H20. No pollution abatement or secondary treatment system needed for iSCWO – water can be discharged into the wastewater treatment system at Minden. There is a complete reduction of solid M6 propellant. No solids will remain after processing. The iSCWO process will generate 3 gpm of water for the 3gpm system and 10 gpm water for the 10 gpm system.	Refer to previous column. Gas effluent – CO and O2 monitoring. Liquid effluent is first sent to a holding tank for chemical evaluation (Ph, Conductivity, Total organic carbon, etc.) Once cleared, liquid is discharged into Minden wastewater treatment system. Potential hazards – handling propellant. GA utilizes a company that specializes in identifying and mitigating hazards to onsite workers and nearby residents.	It is expected that the maximum throughput is 8 lbs/min for the 3gpm unit and 26.6 lbs/min for the 10gpm unit. Real throughput could be a little lower based on the M6 condition. With the two 3gpm units and one 10 gpm unit in full production in a 24 hour operating period, this is a maximum of 61,344 lbs per day. Reliability is greater than 90% - the key is having spare parts that can be quickly replaced along with an effective maintenance program. System inside building – weather no impact

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